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Idaho Basin Outlook Report March 1, 1997

Basin Outlook Reports
and
Federal - State - Private
Cooperative Snow Surveys

For more water supply and resource management information, contact:

Your local Natural Resources Conservation Service Office
or
Natural Resources Conservation Service
Snow Surveys
3244 Elder Street, Room 124
Boise, ID 83705-4711
(208) 378-5740

How forecasts are made

Most of the annual streamflow in the Western United States originates as snowfall that has accumulated high in the mountains during winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Predictions are based on careful measurements of snow water equivalent at selected index points. Precipitation, temperature, soil moisture and antecedent streamflow data are combined with snowpack data to prepare runoff forecasts. Streamflow forecasts are coordinated by Natural Resources Conservation Service and National Weather Service hydrologists. This report presents a comprehensive picture of water supply conditions for areas dependent upon surface runoff. It includes selected streamflow forecasts, summarized snowpack and precipitation data, reservoir storage data, and narratives describing current conditions.

Snowpack data are obtained by using a combination of manual and automated SNOTEL measurement methods. Manual readings of snow depth and water equivalent are taken at locations called snow courses on a monthly or semi-monthly schedule during the winter. In addition, snow water equivalent, precipitation and temperature are monitored on a daily basis and transmitted via meteor burst telemetry to central data collection facilities. Both monthly and daily data are used to project snowmelt runoff.

Forecast uncertainty originates from two sources: (1) uncertainty of future hydrologic and climatic conditions, and (2) error in the forecasting procedure. To express the uncertainty in the most probable forecast, four additional forecasts are provided. The actual streamflow can be expected to exceed the most probable forecast 50% of the time. Similarly, the actual streamflow volume can be expected to exceed the 90% forecast volume 90% of the time. The same is true for the 70%, 30%, and 10% forecasts. Generally, the 90% and 70% forecasts reflect drier than normal hydrologic and climatic conditions; the 30% and 10% forecasts reflect wetter than normal conditions. As the forecast season progresses, a greater portion of the future hydrologic and climatic uncertainty will become known and the additional forecasts will move closer to the most probable forecast.

IDAHO WATER SUPPLY OUTLOOK REPORT

MARCH 1, 1997

SUMMARY

Dry conditions in February brought some welcome relief to much of Idaho, but snowpacks still remain near record levels in the central and southern mountains. Streamflow forecasts throughout the state call for well above normal runoff, with new record flows expected in many basins. Reservoirs are being drawn down to reduce the impacts of the expected high peak flows when the spring snowmelt season begins. Additional snowfall over the next two months and the timing of the melt sequence will determine just how wet Idaho will get this year.

SNOWPACK

Snowfall during February was near to above average in the northern part of the state, but well below average in the central and southern mountains. The Clearwater/Salmon divide was the boundary between wet and dry conditions: the Clearwater basin received 106% of normal mountain precipitation for February while the Salmon basin received only 62%. The remainder of the state received only about half or less of the normal February complement of snow. Even so, snowpacks remain near record levels in the southern and central mountains. Snowpacks currently range from 140-175% of average statewide. The central mountains report 150 to over 170% of normal, while the upper Snake has about 150% of normal snowpack. The next two months will determine whether Idaho sets new records for seasonal maximum snowpacks in 1997. A cool, wet spring will continue building the mountain snowpack, escalating concerns about heavy runoff when warm weather finally hits.

PRECIPITATION

The "pineapple express" that brought copious quantities of moisture to Idaho in December and January shut down for a month, bringing a little midwinter relief to much of the state. Mountain precipitation was near to above average in northern Idaho, but well below average in the south and central mountains. The Wood and Lost River basins were the dry spots, with less than 40% of normal precipitation for the month. One dry month had little overall effect, however; water year to date precipitation ranges from about 135% of average in the north and south to 150% elsewhere.

RESERVOIRS

Storage in most reservoirs has been reduced from the figures reported last month as operators make room for this spring's runoff. Statewide, reservoirs are about half to three-quarters full; many reservoirs will be emptied before the runoff season begins. Consequently, streamflows will be high below most reservoirs until adequate flood control space is attained. Most reservoirs are expected to refill, and sustained high flows should delay the typical summer drawdown of irrigation reservoirs until later than normal. Managers of small private reservoirs should be aware of the potential for uncontrolled spill this spring; assistance is available from the NRCS for reservoir management guidance.

Note: NRCS reports reservoir information in terms of usable volumes, which includes both active, inactive, and in some cases dead storage. Other operators may report reservoir contents in different terms. For additional information, see the reservoir definitions in the back of this report.

STREAMFLOW

Streamflows during February were once again above normal throughout the entire state. This has been the case in nearly all basins since October! In addition, field observations of springs and small streams by cooperators around the state indicate above average soil moisture and ground water levels. As a result, streams will respond quickly to rainfall events and the first onset of snowmelt. Due to the dry conditions in February, forecasts for the Salmon, Wood, Lost, and Southside basins dropped 10 to 30 percentage points from last month. Forecasts for the remainder of the state remain about the same or just slightly lower than last month. Seasonal volume forecasts are still extremely high everywhere, however, with several streams projected to yield record flows this year. Statewide, the April through July projected runoff volumes range from a LOW of 135% to OVER 200% of average! The potential for localized flooding exists in many areas due to the extremely high volumes expected this spring. Fortunately, there is still time to prepare for high water: sandbags can be stockpiled, irrigation diversion works and distribution channels can be reinforced, cleaned or enlarged, and bridges and culverts can be cleaned of debris. Livestock and cropping plans can be altered for flood prone fields, and individual homeowners in low lying areas can inventory or move belongings and prepare survival kits and evacuation plans. Residents in low lying areas should monitor reservoir, streamflow, and weather conditions closely this spring, as warm weather or rain-on-snow events could cause rapid rises in river levels.

RECREATION OUTLOOK

With most of the recreational river basins in the state reporting about 150% of average snowpack, water will be in abundance this year throughout Idaho. Many areas in central and southern Idaho are reporting near record high snowpacks, and streams are expected to yield extremely high volumes this spring and summer. Both the Salmon and Payette rivers - important recreational streams - are expected to yield some of the highest volumes in almost 100 years. Deep snowpacks and heavy snowfall make for excellent skiing, but they are also prime ingredients for avalanche activity in the mountains. Backcountry users should be aware of current avalanche conditions and take the appropriate precautions. River runners should expect extremely high flows during the peak of the runoff season, followed by an extended boating season well into the summer. The southwestern desert rivers should yield a long season this year -- good news for an area that normally has a limited window of opportunity. Novice boaters should be aware of the hazards of high flows and cold water and should exercise caution until water levels drop to a more forgiving level. Reservoir users can expect reservoirs to be drawn down during the spring, but after peak flows are past they should refill and remain full well into the summer. All in all, this record snowfall year will bless Idaho with abundant outdoor recreation opportunities.

WATER SUPPLY FORECASTING PRODUCTS ON THE INTERNET

Water Supply Forecasting products are now available on the INTERNET. These products include the SNOTEL Update Reports, State Basin Outlook Reports, and products previously published in the Water Supply Outlook for the Western United States.

The Universal Resource Locator (URL) for our home page is: http://id.nrcs.usda.gov
You can access the Anonymous FTP server by pointing your INTERNET browser (Netscape, Mosaic, etc.) to: ftp://ftp.wcc.nrcs.usda.gov

We will continue to add more products to our Home Page and Anonymous FTP server and welcome any comments and suggestions you might have. Questions and comments should be directed to the NRCS Snow Survey.

Natural Resources Conservation Service
Snow Survey Staff
3244 Elder Street, Room 124
Boise, Idaho 83705-4711
Phone (208) 378-5740
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IDAHO SURFACE WATER SUPPLY INDEX (SWSI)
As of March 1, 1997

The surface water supply index (swsi) is predictive indicator of surface water availability within a watershed for the spring and summer water use season. The index is calculated by combining pre-runoff reservoir storage (carryover) with forecasts of spring and summer streamflow. SWSI values are scaled from +4.1 (abundant supply) to -4.1 (extremely dry), with a value of zero indicating a median water supply as compared to historical occurrences.

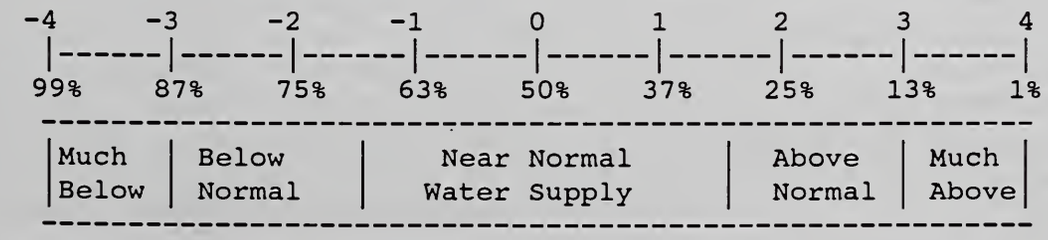
SWSI values are published January through May, and provide a more comprehensive outlook of water availability than either streamflow forecasts or reservoir storage figures alone. The SWSI index allows comparison of water availability between basins for drought or flood severity analysis. Threshold SWSI values have been established for most basins to indicate the potential for agricultural water shortages.

The following agencies and cooperators provide assistance in the preparation of the Surface Water Supply Index for Idaho:

US Department of Commerce, National Weather Service
US Bureau of Reclamation
Idaho Water Users Association
US Army Corps of Engineers
Idaho Department of Water Recourses
PacifiCorp

BASIN or REGION	*SWSI Value*	*Most Recent Year With Similar SWSI Value*	*Agricultural Water Supply Shortage May Occur When SWSI is Less Than*
PANHANDLE	3.7	1972	NA
CLEARWATER	3.3	1975	NA
SALMON	3.8	1965	NA
WEISER	3.5	1982	NA
PAYETTE	4.1	1974	NA
BOISE	4.1	1983	-2.6
BIG WOOD	3.5	1982	-1.4
LITTLE WOOD	3.6	1982	-2.1
BIG LOST	3.7	1984	-0.8
LITTLE LOST	3.8	1984	0.0
HENRYS FORK	3.8	1984	-3.3
SNAKE (AMERICAN FALLS)	2.8	1972	-2.0
OAKLEY	3.7	1975	0.0
SALMON FALLS	3.9	1985	0.0
BRUNEAU	3.6	1975	NA
OWYHEE	1.3	1975	NA
BEAR RIVER	2.5	1974	-3.8

SWSI SCALE, PERCENT CHANCE OF EXCEEDANCE, AND INTERPRETATION



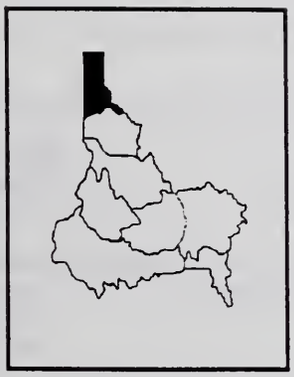
Note: The Percent Chance of Exceedance is an indicator of how often a range of SWSI values might be expected to occur. Each SWSI unit represents about 12% of the historical occurrences. As an example of interpreting the above scale, the SWSI can be expected to be greater than -3.0, 87% of the time and less than -3.0, 13% of the time. Half the time, the SWSI will be below and half the time above a value of zero. The interval between -1.5 and +1.5 described as "Near Normal Water Supply", represents three SWSI units and would be expected to occur about one third (36%) of the time.

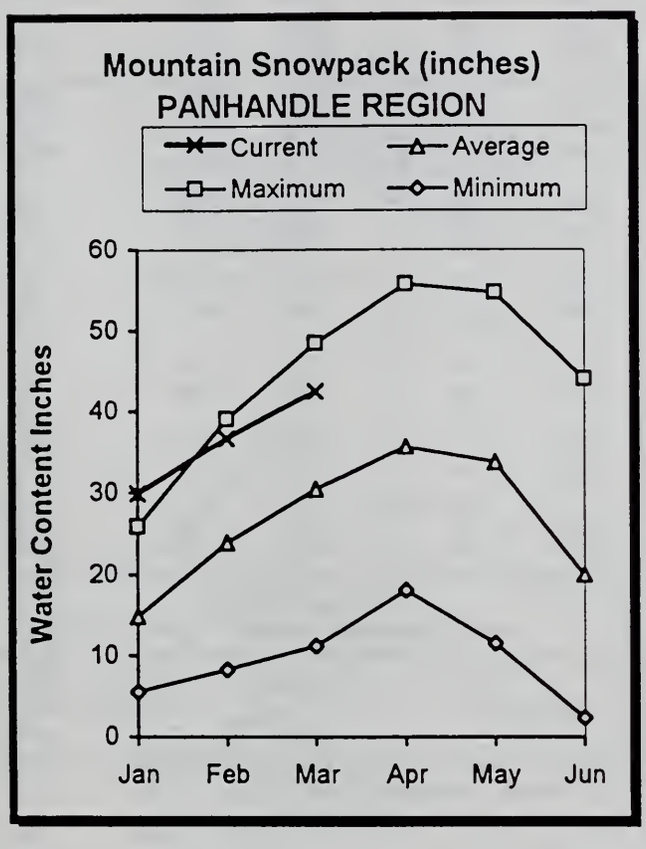
B A S I N - W I D E S N O W P A C K S U M M A R Y

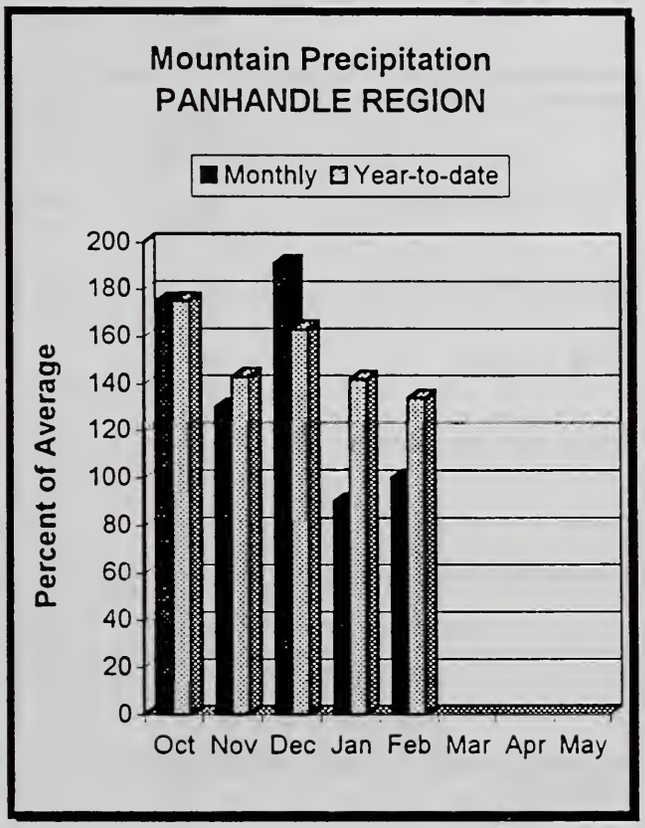
MARCH 1997

BASIN	PERCENT OF LAST YEAR	PERCENT OF AVERAGE
Kootenai ab Bonners Ferry	116%	129%
Moyie River	119%	126%
Priest River	202%	152%
Pend Oreille River	141%	147%
Rathdrum Creek	369%	173%
Hayden Lake	817%	190%
Coeur d'Alene River	208%	155%
St. Joe River	170%	158%
Spokane River	228%	159%
Palouse River	241%	147%
North Fork Clearwater	150%	146%
Lochsa River	126%	140%
Selway River	127%	143%
Clearwater Basin Total	149%	152%
Salmon River ab Salmon	130%	161%
Lemhi River	120%	143%
Middle Fork Salmon River	119%	143%
South Fork Salmon River	120%	139%
Little Salmon River	128%	130%
Salmon Basin Total	124%	147%
Mann Creek	150%	103%
Weiser River	132%	114%
North Fork Payette	131%	140%
South Fork Payette	133%	139%
Payette Basin Total	134%	140%
Middle & North Fork Boise	140%	157%
South Fork Boise River	135%	152%
Mores Creek	177%	144%
Boise Basin Total	146%	147%
Canyon Creek	133%	110%
Big Wood ab Magic	145%	167%
Camas Creek	141%	133%
Big Wood Basin Total	144%	157%
Little Wood River	167%	177%
Fish Creek	156%	130%
Big Lost River	170%	177%
Little Lost River	136%	153%
Camas-Beaver Creeks	158%	117%
Henrys Fork River	145%	157%
Teton River	142%	151%
Snake above Jackson Lake	121%	159%
Gros Ventre River	113%	148%
Hoback River	113%	143%
Greys River	120%	147%
Salt River	114%	141%
Snake above Palisades	119%	153%
Willow Creek	161%	159%
Blackfoot River	129%	141%
Portneuf River	141%	156%
Snake abv American Falls Resv	125%	153%
Raft River	143%	160%
Goose-Trapper Creeks	146%	163%
Salmon Falls Creek	134%	151%
Bruneau River	124%	147%
Owyhee Basin Total	124%	141%
Smiths & Thomas Forks	124%	150%
Bear River ab WY-ID line	116%	150%
Montpelier Creek	114%	142%
Mink Creek	140%	152%
Cub River	152%	183%
Bear River ab ID-UT line	127%	155%
Malad River	163%	172%
Green River ab Warren Bridge	112%	144%
Upper Green River (West Side)	112%	150%
New Fork River	126%	144%
Big Sandy River/Eden Valley	139%	151%
Green River above Fontenelle	114%	148%
Hams Fork River	119%	149%
Green River above Flaming Gorge	112%	144%

PANHANDLE REGION
MARCH 1, 1997







WATER SUPPLY OUTLOOK

Precipitation in February was near normal, bringing the water year total to 134% of average. Snowpacks are approximately 150% of average for most basins in the region. However, snowpacks in the lower elevation drainages of Hayden Lake and Rathdrum Creek are nearly twice their normals. There is heightened concern for flooding of low lying areas if rain-on-snow events or warm weather occurs suddenly. Reservoir storage is near normal for the natural lakes and reservoirs in this region. Streamflow forecasts did not change significantly from the figures reported last month, and range from 112% of average for the Kootenai River at Leonia to 150% for the Spokane River. Residents in low lying areas should monitor weather conditions closely this spring. With both low and high elevation snowpacks well above average, streams may rise rapidly if warm weather or heavy rainfall suddenly occurs.

PANHANDLE REGION
Streamflow Forecasts - March 1, 1997

Forecast Point	Forecast Period	<<= Drier = Future Conditions = Wetter =>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
KOOTENAI at Leonia (1,2)	APR-JUN	5125	5954	6330	111	6706	7535	5701
	APR-JUL	6532	7562	8030	112	8498	9528	7199
	APR-SEP	7506	8692	9230	112	9768	10954	8275
CLARK FK at Whitehorse Rpds (1,2)	APR-JUN	11156	12837	13600	135	14363	16044	10050
	APR-JUL	13135	15105	16000	136	16895	18865	11730
	APR-SEP	14447	16615	17600	136	18585	20753	12910
PEND OREILLE Lake Inflow (1,2)	APR-JUN	12998	14994	15900	140	16806	18802	11390
	APR-JUL	15325	17440	18400	140	19360	21475	13150
	APR-SEP	16737	19050	20100	140	21150	23463	14370
PRIEST nr Priest River (1,2)	APR-JUL	903	1052	1120	138	1188	1337	814
	APR-SEP	959	1118	1190	137	1262	1421	868
COEUR D'ALENE at Enaville	APR-JUL	981	1088	1160	151	1232	1339	770
	APR-SEP	1037	1146	1220	151	1294	1403	809
ST.JOE at Calder	APR-JUL	1521	1645	1730	148	1815	1939	1169
	APR-SEP	1614	1743	1830	148	1917	2046	1237
SPOKANE near Post Falls (2)	APR-JUL	3378	3724	3960	150	4196	4542	2633
	APR-SEP	3507	3860	4100	150	4340	4693	2730
SPOKANE at Long Lake	APR-JUL	3725	4094	4345	148	4596	4965	2936
	APR-SEP	4032	4415	4675	148	4935	5318	3159

PANHANDLE REGION
Reservoir Storage (1000 AF) - End of February

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
HUNGRY HORSE	3451.0	1681.0	2635.0	2205.0
FLATHEAD LAKE	1791.0	935.1	1354.0	881.0
NOXON RAPIDS	335.0	291.1	324.0	298.1
PEND OREILLE	1561.3	961.5	1098.0	831.8
COEUR D'ALENE	238.5	146.5	293.5	149.1
PRIEST LAKE	119.3	62.0	75.0	54.1

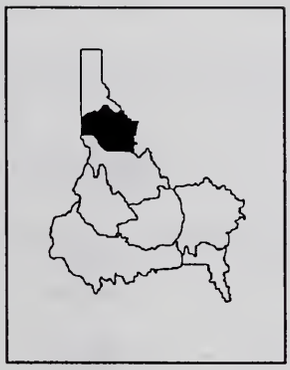
PANHANDLE REGION
Watershed Snowpack Analysis - March 1, 1997

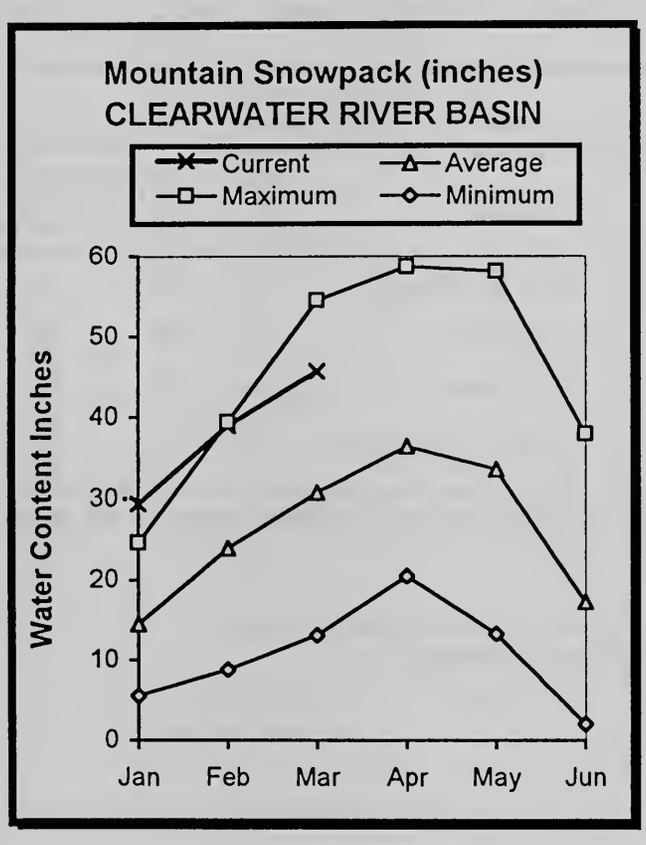
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Kootenai ab Bonners Ferry	31	114	129
Moyie River	3	119	126
Priest River	4	202	152
Pend Oreille River	97	141	147
Rathdrum Creek	4	369	173
Hayden Lake	2	817	190
Coeur d'Alene River	9	208	155
St. Joe River	3	170	158
Spokane River	17	228	159
Palouse River	1	241	147

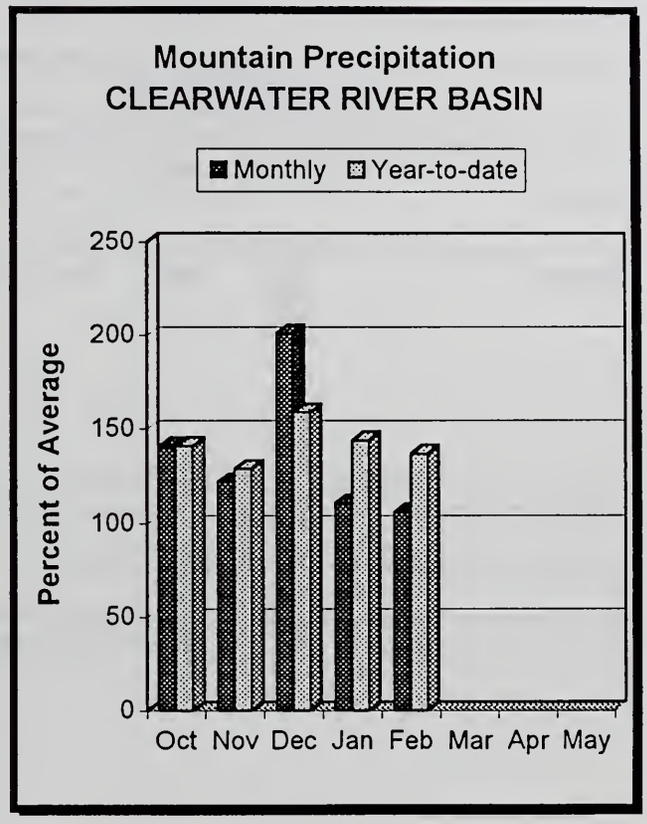
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table. The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

CLEARWATER RIVER BASIN
MARCH 1, 1997







WATER SUPPLY OUTLOOK

The Clearwater basin was the only basin in the state that received above normal precipitation amounts in February (106% of average). Precipitation for the water year is 137% of average; last year it was 150% of average at this time. Snowpack levels this year are the third highest since 1961, exceeded only by 1972 and 1974. Snowpacks in the basin currently range from 140-150% of average. Low elevation snowpacks are also well above average for this time of year. Streamflow forecasts have not changed significantly from the figures reported last month. Inflow to Dworshak Reservoir is forecast at 3.9 million acre-feet, 147% of average. Dworshak Reservoir is being drafted in preparation for this year's high runoff. The Clearwater River at Spalding is forecast at 142% of average. Residents in low lying areas should monitor weather conditions closely this spring. With both low and high elevation snowpacks well above average, streams may rise rapidly if warm weather or heavy rainfall suddenly occurs.

CLEARWATER RIVER BASIN
Streamflow Forecasts - March 1, 1997

Forecast Point	Forecast Period	<<= Drier = Future Conditions = Wetter =>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
DWORSHAK RESV INFLOW (2)	APR-JUL	3485	3762	3950	147	4138	4415	2692
	APR-SEP	3720	4012	4210	147	4408	4700	2866
CLEARWATER at Orofino (1)	APR-JUL	4762	5833	6320	134	6807	7878	4718
	APR-SEP	5036	6166	6680	134	7194	8324	4976
CLEARWATER at Spalding (1,2)	APR-JUL	8397	10050	10800	142	11550	13203	7618
	APR-SEP	8856	10606	11400	142	12194	13944	8052

CLEARWATER RIVER BASIN
Reservoir Storage (1000 AF) - End of February

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
DWORSHAK	3459.0	1868.7	3018.6	2084.1

CLEARWATER RIVER BASIN
Watershed Snowpack Analysis - March 1, 1997

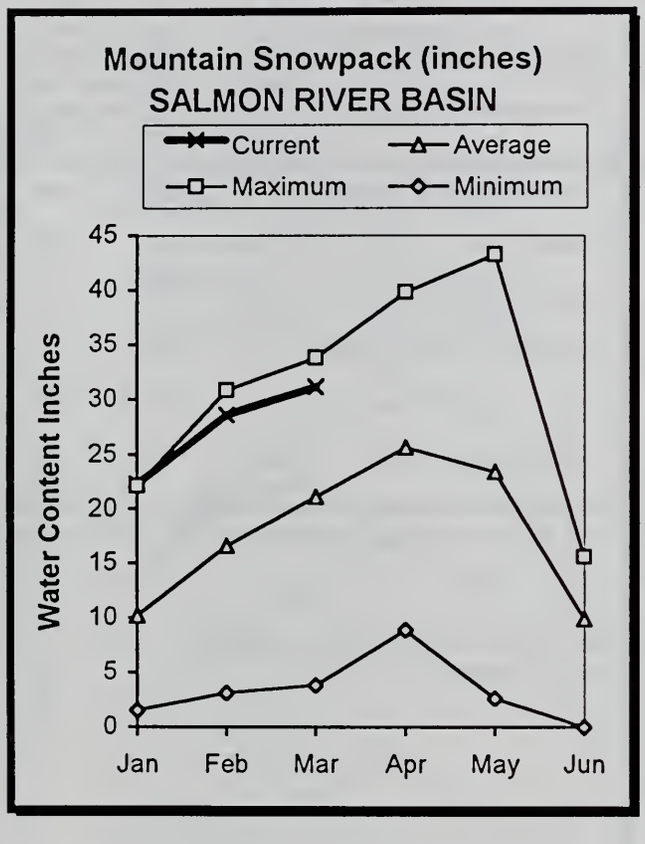
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
North Fork Clearwater	11	150	146
Lochsa River	4	126	140
Selway River	6	127	143
Clearwater Basin Total	20	149	152

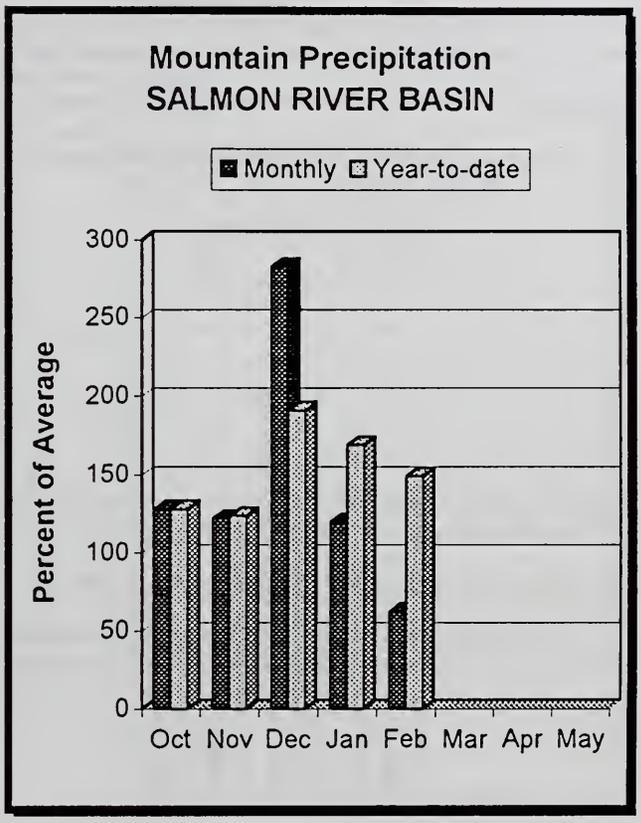
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

SALMON RIVER BASIN
MARCH 1, 1997





WATER SUPPLY OUTLOOK

February precipitation in the Salmon River mountains was just over half of normal, the first below normal month since the water year began. Snowpack levels range from 130% of average in the Little Salmon basin to 160% for the Salmon River above Salmon. Overall, the Salmon River snowpack is 147% of average -- the third highest amount since 1961. Only 1965 and 1974 had more snow on March 1 than this year. Streamflow forecasts dropped somewhat from the figures reported last month but still call for record flows. The forecast for the Salmon at White Bird calls for 9.2 million acre-feet, 155% of average. The Salmon River at Salmon is forecast at 177% of average. The projected volume for the Salmon at Salmon is the highest since records started in the early 1900's; the forecast for White Bird is just slightly under the previous records set in 1971 and 1974. Streamflow peaks will most likely be very high this year with high flows extending well into the summer. River runners should use caution when evaluating their high water boating capabilities. The abundant snowpacks will provide extended boating opportunities well after the seasonal snowmelt peaks occur.

SALMON RIVER BASIN
Streamflow Forecasts - March 1, 1997

Forecast Point	Forecast Period	<<= Drier = Future Conditions = Wetter =>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
SALMON at Salmon (1)	APR-JUL	1199	1433	1540	177	1647	1881	869
	APR-SEP	1400	1675	1800	177	1925	2200	1019
SALMON at White Bird (1)	APR-JUL	7440	8650	9200	155	9750	10960	5956
	APR-SEP	8250	9591	10200	155	10809	12150	6602

SALMON RIVER BASIN
Reservoir Storage (1000 AF) - End of February

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg

SALMON RIVER BASIN
Watershed Snowpack Analysis - March 1, 1997

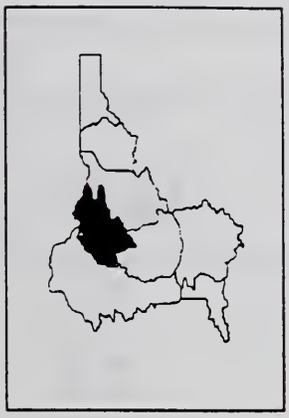
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Salmon River ab Salmon	9	130	161
Lemhi River	8	120	143
Middle Fork Salmon River	3	119	143
South Fork Salmon River	3	120	139
Little Salmon River	4	128	130
Salmon Basin Total	28	124	147

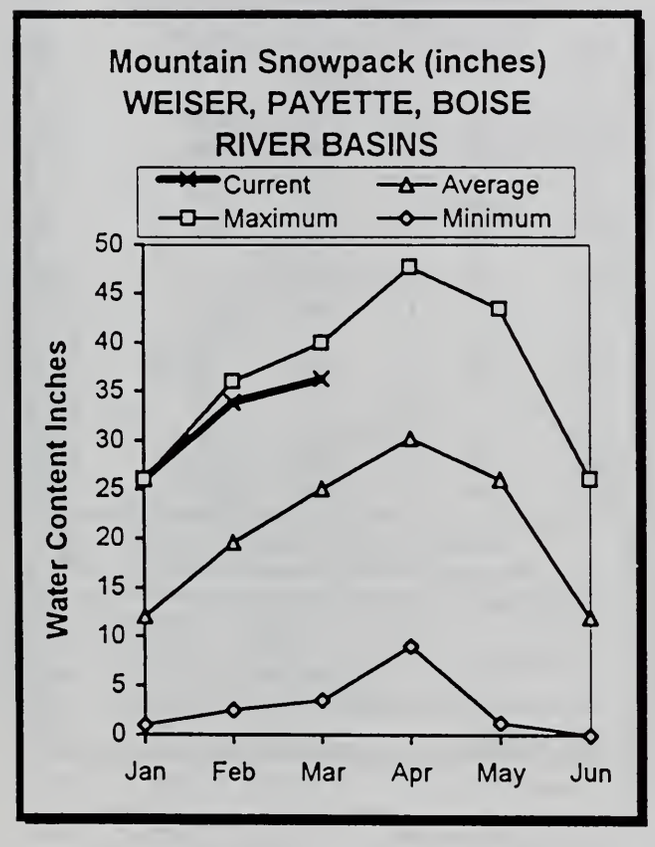
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

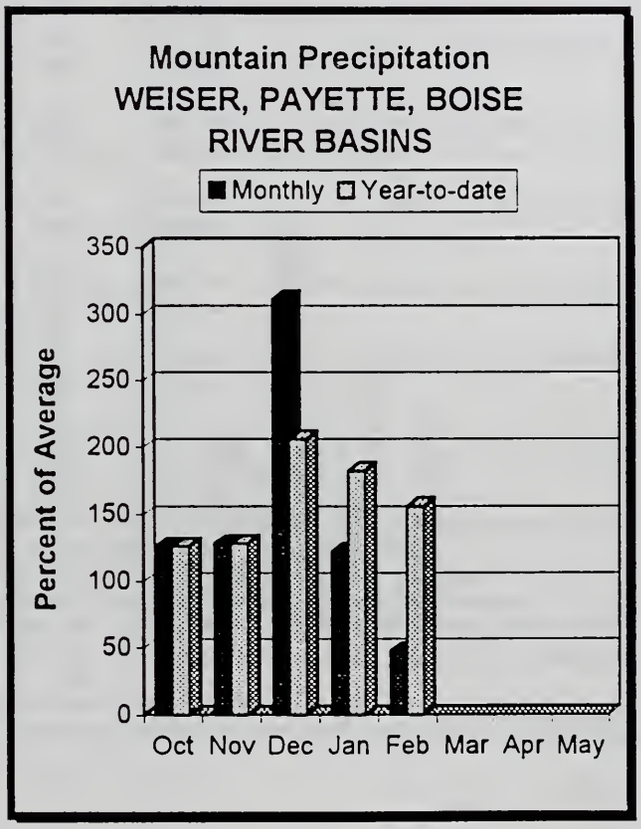
The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

WEISER, PAYETTE, BOISE RIVER BASINS
MARCH 1, 1997







WATER SUPPLY OUTLOOK

February brought some relief to the near record snow levels in the west-central Idaho mountains. February precipitation was only half of normal, bringing the water year total to 156% of average. Overall, the snowpack in the Weiser, Payette and Boise basin is the fifth highest since 1961. The Boise basin snowpack is 147% of average; the Payette basin reports 140%. The snowpack in the lower elevation Weiser River basin is 114% of average. Higher elevation SNOTEL sites in the Boise basin are at their highest levels since 1956. Reservoirs are being drafted in anticipation for the high runoff. Currently, the Boise reservoir system is about half full while the Payette system is 56% of capacity. These reservoirs will help reduce peak flows downstream when the snowpack starts melting. Streamflow forecasts for the Boise and Payette rivers dropped slightly from the figures reported last month but are still at record levels. The Boise River at Boise is forecast at the second highest volume of the century: 2.65 million acre-feet or 187% of the April-July volume. The Payette River near Horseshoe Bend is also forecast at a record volume: 2.9 million acre-feet, or 182% of average. The New Year's Day floods have damaged some levees in the Payette and Weiser basins; emergency rehabilitation work is continuing in these areas. Residents in low lying areas should monitor reservoir, streamflow, and weather conditions closely when the snow starts melting and streams start rising.

WEISER, PAYETTE, BOISE RIVER BASINS
Streamflow Forecasts - March 1, 1997

Forecast Point	Forecast Period	<<= Drier = Future Conditions = Wetter =>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
WEISER nr Weiser (1)	APR-JUL	378	524	590	153	656	802	386
	APR-SEP	408	564	635	153	706	862	415
SF PAYETTE at Lowman	APR-JUL	726	771	802	186	833	878	432
	APR-SEP	805	856	891	183	926	977	488
DEADWOOD RESERVOIR Inflow (1,2)	APR-JUL	202	222	232	172	242	262	135
	APR-SEP	211	233	243	170	253	275	143
NF PAYETTE nr Cascade (1,2)	APR-JUL	735	833	878	177	923	1021	496
	APR-SEP	786	892	940	176	988	1094	533
NF PAYETTE nr Banks (2)	APR-JUL	994	1087	1150	178	1213	1306	648
	APR-SEP	1061	1160	1228	178	1296	1395	690
PAYETTE nr Horseshoe Bend (1,2)	APR-JUL	2538	2818	2945	182	3072	3352	1618
	APR-SEP	2736	3041	3180	181	3319	3624	1755
BOISE near Twin Springs (1)	APR-JUL	963	1057	1100	174	1143	1237	631
	APR-SEP	1049	1149	1195	174	1241	1341	686
SF BOISE at Anderson Rnch Dm (1,2)	APR-JUL	894	995	1040	191	1085	1186	544
	APR-SEP	954	1061	1110	191	1159	1266	582
MORES CK nr Arrowrock Dam	APR-JUL	221	241	255	198	269	289	129
	APR-SEP	230	251	265	198	279	300	134
BOISE nr Boise (1,2)	APR-JUN	2106	2277	2355	186	2433	2604	1264
	APR-JUL	2308	2543	2650	187	2757	2992	1421
	APR-SEP	2496	2746	2860	186	2974	3224	1535

WEISER, PAYETTE, BOISE RIVER BASINS
Reservoir Storage (1000 AF) - End of February

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
MANN CREEK	11.1	8.5	8.6	6.8
CASCADE	703.2	397.1	551.0	393.8
DEADWOOD	161.9	91.4	126.9	84.5
ANDERSON RANCH	464.2	259.7	385.0	282.1
ARROWROCK	286.6	95.8	201.8	234.8
LUCKY PEAK	293.2	156.4	117.7	122.5
LAKE LOWELL (DEER FLAT)	177.1	104.3	143.8	140.6

WEISER, PAYETTE, BOISE RIVER BASINS
Watershed Snowpack Analysis - March 1, 1997

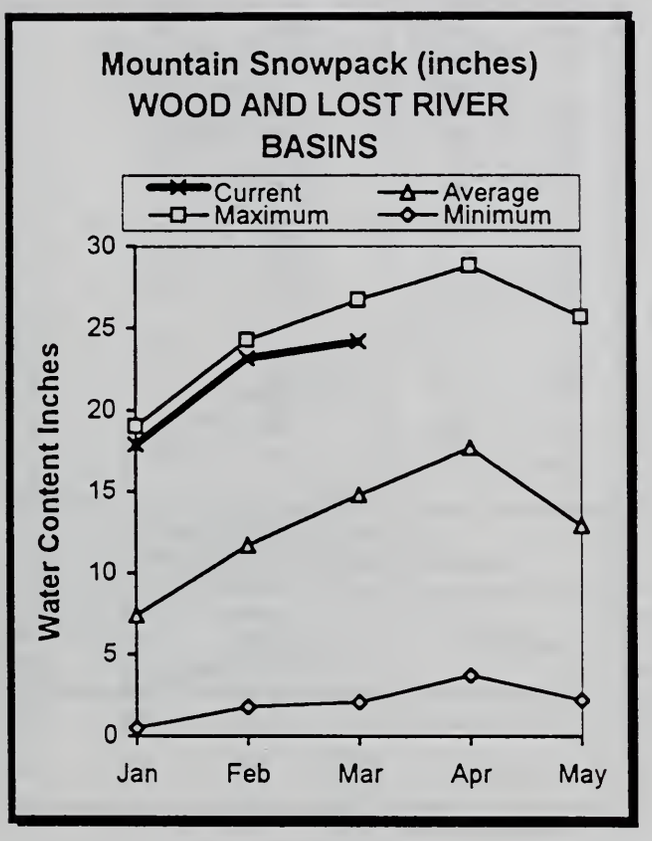
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Mann Creek	2	150	103
Weiser River	5	132	114
North Fork Payette	8	131	140
South Fork Payette	5	133	139
Payette Basin Total	14	134	140
Middle & North Fork Boise	6	140	157
South Fork Boise River	9	135	152
Mores Creek	5	177	144
Boise Basin Total	16	146	147
Canyon Creek	2	133	110

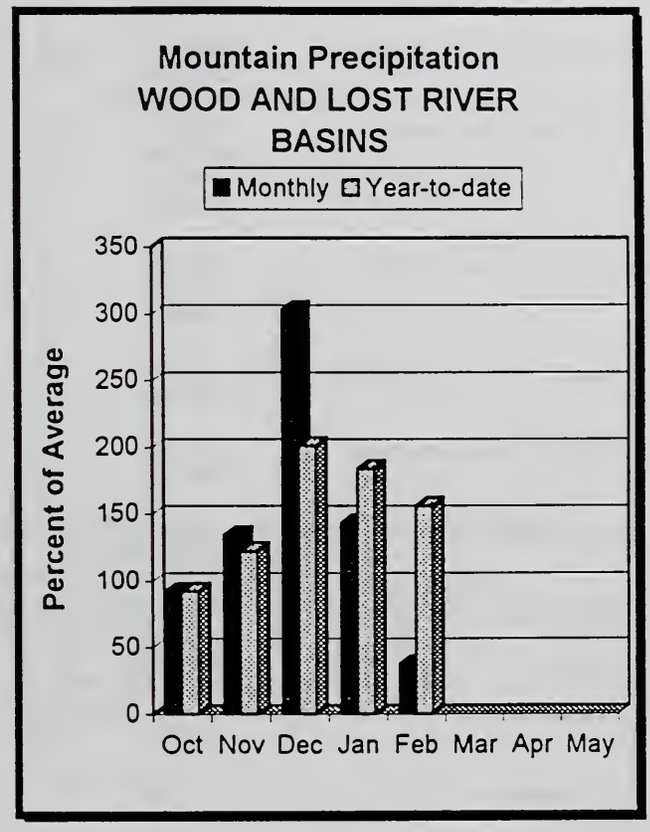
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

WOOD and LOST RIVER BASINS
MARCH 1, 1997





WATER SUPPLY OUTLOOK

February mountain precipitation was only 37% of average in the east central mountains, the driest region in the state. However, snowpack levels in the Wood and Lost River basins are the third highest since 1961 and only slightly less than the record high years of 1965 and 1969. Individual sites, especially higher elevation sites, throughout this area are setting new records. Fishpole lake snow course, located at 9,300 feet along the Little Wood and Big Lost basin divide, set a new record for March 1 with 39.9 inches of snow water content, just short of the all time record of 41.2 inches set on May 1, 1995. Any additional snow this year will only add to the already high record levels. Most reservoirs in this region are being drafted to help reduce peak flows downstream. Currently, Magic Reservoir is 41% of capacity, Mackay 38%, and Little Wood is 18%. Streamflow forecasts dropped from last month due to the dry conditions in February, but still call for near record volumes. Forecasts currently range from 157% of average for the Little Lost River to over 200% for the Big and Little Wood rivers. Emergency plans are being developed for some areas to help manage the high flows. Water users and residents in low lying areas should monitor the situation closely and can expect streamflows to remain high throughout the summer.

WOOD AND LOST RIVER BASINS
Streamflow Forecasts - March 1, 1997

Forecast Point	Forecast Period	<<= Drier = Future Conditions = Wetter =>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	50% (Most Probable) (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
BIG WOOD near Hailey (1)	APR-JUL	355	430	466	183	504	592	255
	APR-SEP	404	486	525	182	566	662	289
BIG WOOD near Bellevue	APR-JUL	290	345	385	210	427	493	183
	APR-SEP	314	371	412	209	456	523	197
CAMAS CREEK near Blaine	APR-JUL	173	204	227	223	251	289	102
	APR-SEP	175	206	229	222	253	291	103
BIG WOOD below Magic Dam (2)	APR-JUL	542	591	625	212	659	708	295
	APR-SEP	571	624	660	213	696	749	310
LITTLE WOOD near Carey (2)	MAR-JUL	173	193	206	207	220	240	100
	MAR-SEP	184	206	220	204	234	256	108
	APR-JUL	160	179	193	211	206	226	92
	APR-SEP	171	192	207	208	221	242	99
BIG LOST at Howell Ranch	APR-JUN	211	233	248	176	263	285	141
	APR-JUL	263	296	319	176	342	375	181
	APR-SEP	297	335	360	175	385	423	206
BIG LOST below Mackay Reservoir (2)	APR-JUL	217	248	270	177	292	323	153
	APR-SEP	262	298	322	175	346	382	184
LITTLE LOST blw Wet Creek	APR-JUL	41	46	49	157	52	56	31
	APR-SEP	50	56	60	153	64	70	39

WOOD AND LOST RIVER BASINS
Reservoir Storage (1000 AF) - End of February

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
MAGIC	191.5	78.0	125.5	102.4
LITTLE WOOD	30.0	5.3	22.4	17.6
MACKAY	44.4	16.9	41.5	32.6

WOOD AND LOST RIVER BASINS
Watershed Snowpack Analysis - March 1, 1997

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Big Wood ab Magic	8	145	167
Camas Creek	5	141	133
Big Wood Basin Total	13	144	157
Little Wood River	4	167	177
Fish Creek	3	156	130
Big Lost River	7	170	177
Little Lost River	4	136	153

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
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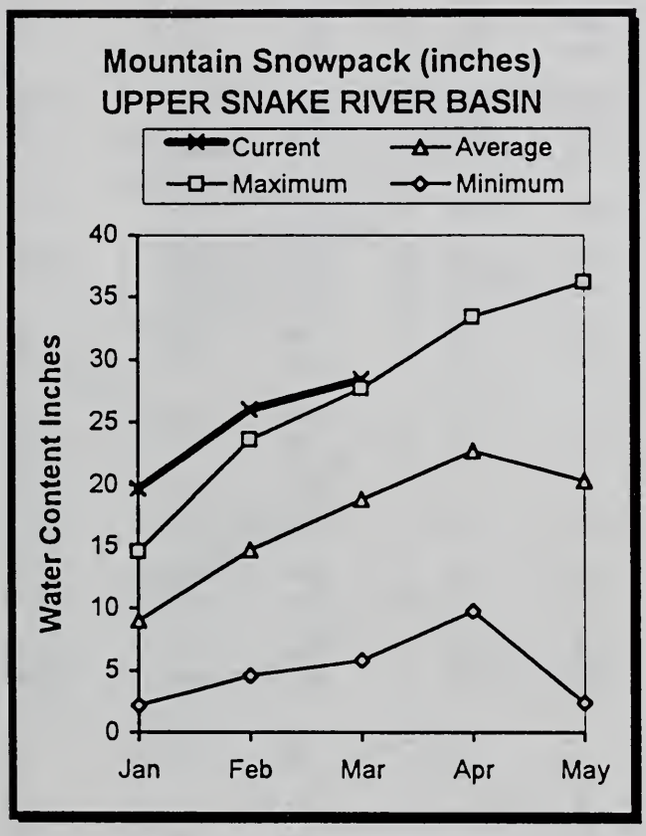
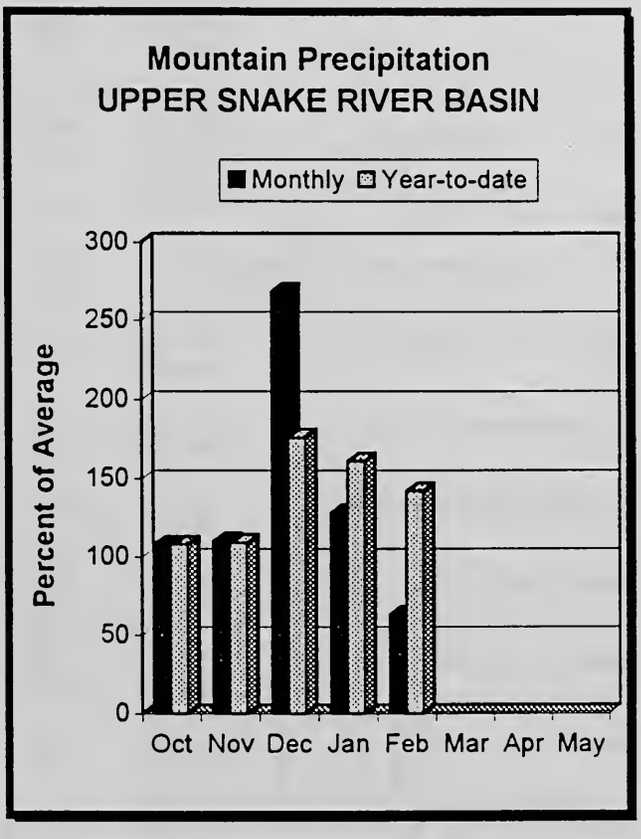
UPPER SNAKE RIVER BASIN
MARCH 1, 1997





WATER SUPPLY OUTLOOK

Snow levels in the Snake basin above American Falls remain at record high levels even though February mountain precipitation was just over half of normal. Precipitation for the water year is now 142% of average. Overall, the snowpack in the Snake basin above American Falls is currently 153% of average. New maximum March 1 snow levels are being recorded in the Henrys Fork, Teton, and Upper Snake basins. Even the low elevation snowpacks range from 141% of average for the Blackfoot basin to 156% of average in the Portneuf basin. The Portneuf snowpack is the fifth highest since 1945 and very similar to conditions in 1982 and 1984. Reservoir storage in the eight major reservoirs of the upper Snake is 73% of capacity. Reservoirs are being drafted to make room for the expected high flows this summer. Projected storage on April 1 will be near the minimum of record for the mainstem Snake reservoirs. Many streams in this region are forecast at or near their record April-July volumes. Water users can expect streams to be above average for the remainder of this year. There is the potential for localized flooding in the lower elevations, especially the Portneuf basin, if rapid melting occurs. Residents in low lying areas should monitor streamflow and weather conditions closely this spring when this record snowpack starts melting.

UPPER SNAKE RIVER BASIN
Streamflow Forecasts - March 1, 1997

Forecast Point	Forecast Period	<<= Drier = Future Conditions = Wetter =>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
HENRYS FORK nr Ashton (2)	APR-JUL	654	708	745	137	782	836	544
	APR-SEP	868	932	975	134	1018	1082	730
HENRYS FORK nr Rexburg (2)	APR-JUL	1527	1656	1744	142	1832	1961	1228
	APR-SEP	1959	2102	2200	142	2298	2441	1551
FALLS RIVER nr Squirrel (1,2)	APR-JUL	425	470	490	135	510	555	364
	APR-SEP	506	557	580	134	603	654	432
TETON abv S Leigh Ck nr Driggs	APR-JUL	225	248	264	173	280	303	153
	APR-SEP	296	323	342	172	361	388	199
TETON nr St. Anthony (2)	APR-JUL	506	556	590	157	624	674	375
	APR-SEP	608	664	702	155	740	796	454
SNAKE nr Moran (1,2)	APR-SEP	1131	1247	1300	150	1353	1469	869
SNAKE R abv Palisades Rsvr nr Alpine	APR-JUL	3127	3357	3514	154	3671	3901	2286
	APR-SEP	3530	3801	3985	151	4169	4440	2647
GREYS R abv Palisades Reservoir	APR-JUL	378	421	450	135	479	522	333
	APR-SEP	444	492	525	135	558	606	388
SALT abv Reservoir nr Etna	APR-JUL	332	390	430	134	470	528	320
	APR-SEP	429	495	540	135	585	651	400
PALISADES RESV INFLOW (1,2)	APR-JUL	4106	4583	4800	149	5017	5494	3225
	APR-SEP	4831	5360	5600	149	5840	6369	3762
SNAKE nr Heise (2)	APR-JUL	4523	4879	5120	148	5361	5717	3451
	APR-SEP	5323	5732	6010	149	6288	6697	4048
SNAKE nr Blackfoot (1,2)	APR-JUL	5612	6415	6780	153	7145	7948	4444
	APR-SEP	6907	7783	8180	149	8577	9453	5482
PORTNEUF at Topaz	MAR-JUL	106	116	123	143	130	140	86
	MAR-SEP	130	142	150	140	158	170	107
AMERICAN FALLS RESV INFLOW (1,2)	APR-JUL	4042	4914	5310	173	5706	6578	3066
	APR-SEP	4257	5256	5710	173	6164	7163	3303

UPPER SNAKE RIVER BASIN
Reservoir Storage (1000 AF) - End of February

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
HENRYS LAKE	90.4	84.2	85.2	79.4
ISLAND PARK	135.2	112.4	118.0	110.1
GRASSY LAKE	15.2	13.2	13.3	11.0
JACKSON LAKE	847.0	652.3	674.1	481.0
PALISADES	1400.0	854.7	1188.4	1063.1
RIRIE	80.5	52.0	46.5	41.7
BLACKFOOT	348.7	293.7	230.3	242.1
AMERICAN FALLS	1672.6	1268.0	1582.4	1277.2

UPPER SNAKE RIVER BASIN
Watershed Snowpack Analysis - March 1, 1997

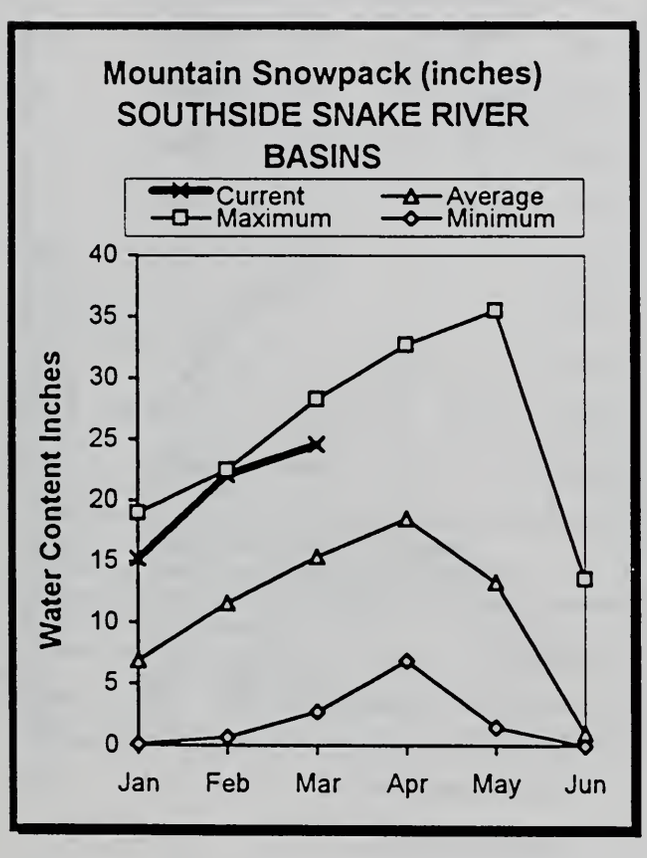
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Camas-Beaver Creeks	4	158	117
Henrys Fork River	12	145	157
Teton River	8	142	151
Snake above Jackson Lake	13	121	159
Gros Ventre River	3	113	148
Hoback River	6	113	143
Greys River	4	120	147
Salt River	5	114	141
Snake above Palisades	31	119	153
Willow Creek	7	161	159
Blackfoot River	5	129	141
Portneuf River	6	141	156
Snake abv American Falls	46	125	153

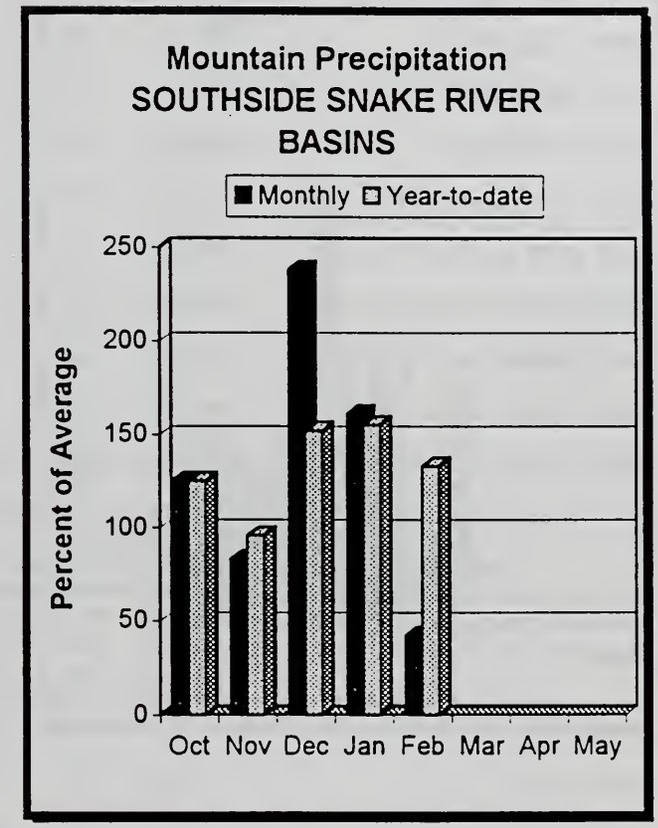
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

SOUTHSIDE SNAKE RIVER BASINS MARCH 1, 1997





WATER SUPPLY OUTLOOK

Snowpacks along the southern edge of Idaho still remain at or near record levels. Overall, the snowpack in the high desert streams south of the Snake River are the third highest since 1961. Snowpacks in the Salmon Falls Creek and Bruneau River basins are about 150% of average, while the Raft River and Oakley basins report about 160%. Only 1972 and 1984 had more snow on March 1 than this year. February precipitation was less than half of normal, bringing the water year total to 133% of average. Streams across southern Idaho are expected to yield 140-200% of average volumes this year. However, because of the high variability of streamflow in these desert streams combined with the uncertainties of future precipitation and timing of runoff, users should examine the various probability level forecasts when evaluating their risk tolerance. Emergency measures are being formulated to help manage the anticipated high runoff into Oakley Reservoir. Reservoir managers need to balance inflows with releases and irrigation demands to ensure reservoirs do not overfill. Residents in low lying areas should monitor the weather closely over the next few months. If the snow continues accumulating in March, April and into May, runoff volumes will be higher than if a gradual melt occurs during these months. The unknown future climatic conditions will present significant reservoir operation challenges due to the near record snow levels this year.

SOUTHSIDE SNAKE RIVER BASINS
Streamflow Forecasts - March 1, 1997

Forecast Point	Forecast Period	<<= Drier = Future Conditions = Wetter =>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
OAKLEY RESV INFLOW	MAR-JUL	53	62	68	206	75	85	33
	MAR-SEP	58	67	74	205	81	93	36
SALMON FALLS CREEK nr San Jacinto	MAR-JUN	116	139	156	180	173	201	86
	MAR-JUL	123	148	166	181	185	215	92
	MAR-SEP	131	157	175	182	195	225	96
BRUNEAU near Hot Springs	MAR-JUL	302	361	405	172	451	523	235
	MAR-SEP	313	375	420	171	468	542	246
OWYHEE near Gold Creek (2)	MAR-JUL	43	53	60	191	68	81	31
OWYHEE nr Owyhee (2)	APR-JUL	124	149	165	192	182	206	86
OWYHEE near Rome	MAR-JUL	588	698	779	143	864	997	545
OWYHEE RESV INFLOW	APR-SEP	367	479	564	135	656	803	418
SUCCOR CK nr Jordan Valley	MAR-JUL	16.1	22	26	181	30	36	14.3
SNAKE RIVER at King Hill (2)	APR-JUL			4040	140			2896
SNAKE RIVER near Murphy (2)	APR-JUL			4200	141			2980
SNAKE RIVER at Weiser (2)	APR-JUL			9480	174			5465
SNAKE RIVER at Hells Canyon Dam	APR-JUL			10600	173			6129
SNAKE blw Lower Granite Dam (1,2)	APR-JUL	25330	30329	32600	151	34871	39870	21650

SOUTHSIDE SNAKE RIVER BASINS
Reservoir Storage (1000 AF) - End of February

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
OAKLEY	77.4	33.1	28.0	29.9
SALMON FALLS	182.6	59.5	58.6	53.9
WILDHORSE RESERVOIR	71.5	57.0	40.7	33.0
OWYHEE	715.0	550.5	594.2	512.0
BROWNLEE	1419.3	1021.5	1345.5	975.0

SOUTHSIDE SNAKE RIVER BASINS
Watershed Snowpack Analysis - March 1, 1997

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Raft River	6	143	160
Goose-Trapper Creeks	6	146	163
Salmon Falls Creek	5	134	151
Bruneau River	8	124	147
Owyhee Basin Total	20	124	141

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

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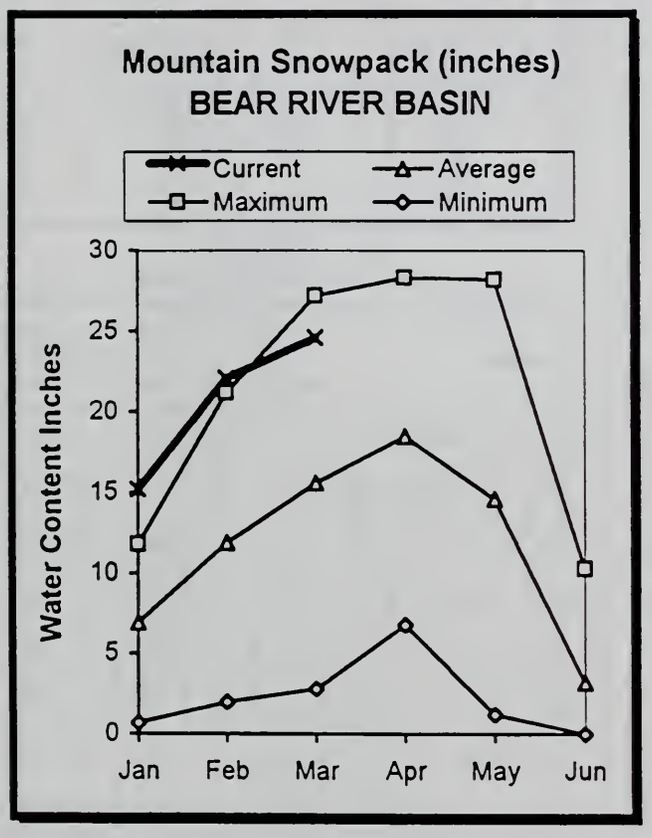
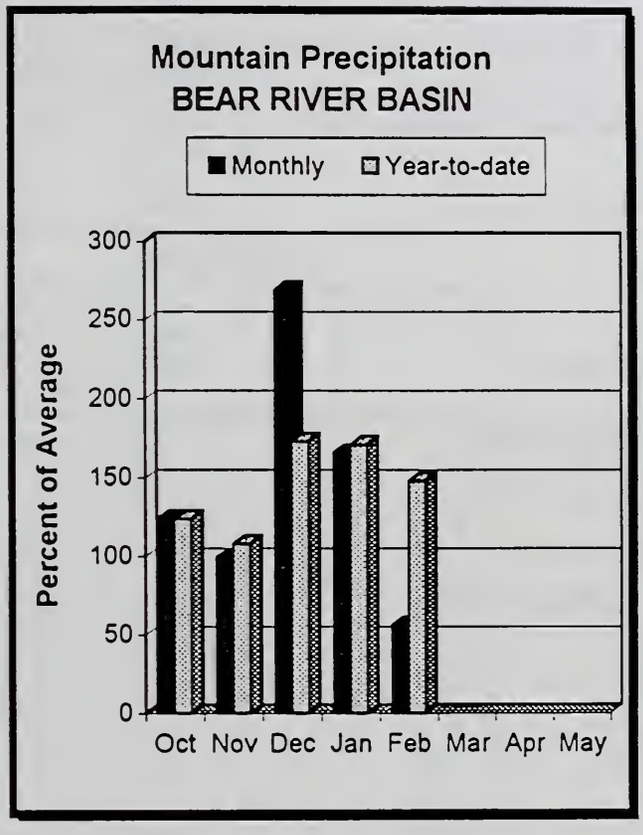
BEAR RIVER BASIN
MARCH 1, 1997





WATER SUPPLY OUTLOOK

February brought some relief to the Bear River basin. Precipitation during the month was only about half of normal but remains at 148% of average for the water year. Snow water content levels are the sixth highest in the last 35 years. Snowpacks range from 140% of average in Montpelier Creek to 180% in the Cub River basin. Overall, the Bear River basin is 150% of average. Some individual sites such as Oxford SNOTEL in the Malad basin, Upper Home Canyon in Montpelier Creek, and Franklin Basin are near or above their maximum March 1 snow levels. Streamflow forecasts remain high and call for 150 to 190% of average runoff this year. Bear Lake is 2/3 full and water diversions into the lake have decreased for now. Montpelier Creek reservoir is half full and will fill this year. Reservoir operators of the numerous small reservoirs in the area should monitor reservoir storage, inflow and weather conditions closely to maintain storage space when the peak flow occurs this spring. Drafting of some reservoirs in anticipation of the spring runoff may be necessary to minimize high flows below the reservoirs.

BEAR RIVER BASIN
Streamflow Forecasts - March 1, 1997

Forecast Point	Forecast Period	<<= Drier = Future Conditions = Wetter =>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	50% (Most Probable) (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
BEAR R nr Randolph, UT	APR-JUL	116	157	185	157	213	254	118
	APR-SEP	122	169	200	158	231	278	127
SMITHS FORK nr Border, WY	APR-JUL	144	159	170	167	181	196	102
	APR-SEP	170	188	200	170	212	230	118
THOMAS FK nr WY-ID State Line	APR-JUL	37	50	62	188	77	105	33
	APR-SEP	41	55	68	189	84	114	36
BEAR R blw Stewart Dam nr Montpelier	APR-JUL	356	418	460	160	502	564	288
	APR-SEP	408	478	525	161	572	642	327
MONTPELIER CK nr Montpelier (2)	APR-JUL	13.5	17.0	20	164	24	30	12.2
	APR-SEP	16.7	21	24	169	28	35	14.2
CUB R nr Preston	APR-JUL	58	65	69	147	74	80	47

BEAR RIVER BASIN
Reservoir Storage (1000 AF) - End of February

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
WOODRUFF NARROWS	57.3	30.2	45.0	---
WOODRUFF CREEK	4.0	2.1	4.0	---
BEAR LAKE	1421.0	943.2	616.6	992.5
MONTPELIER CREEK	4.0	2.0	3.2	1.6

BEAR RIVER BASIN
Watershed Snowpack Analysis - March 1, 1997

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Smiths & Thomas Forks	3	124	150
Bear River ab WY-ID line	10	116	150
Montpelier Creek	2	114	142
Mink Creek	4	140	152
Cub River	3	152	183
Bear River ab ID-UT line	22	127	155
Malad River	3	163	172

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

Streamflow Adjustment List For All Forecasts Published In Idaho Basin Outlook Report

Streamflow forecasts are projections of runoff volumes that would have occurred naturally without influences from upstream reservoirs or diversions. These values are referred to as natural or adjusted flows. To make these adjustments, changes in reservoir storage, diversions, and interbasin transfers are added or subtracted from the observed (actual) streamflow volumes. The following list documents the adjustments made to each forecast point in this report.

Panhandle River Basins

KOOTENAI R AT LEONIA, ID
+ LAKE KOOCANUSA (STORAGE CHANGE)
CLARK FORK R AT WHITEHORSE RAPIDS, ID
+ HUNGRY HORSE (STORAGE CHANGE)
+ FLATHEAD LAKE (STORAGE CHANGE)
+ NOXON RAPIDS RESV (STORAGE CHANGE)
PEND OREILLE LAKE INFLOW, ID
+ PEND OREILLE R AT NEWPORT, WA
+ HUNGRY HORSE (STORAGE CHANGE)
+ FLATHEAD LAKE (STORAGE CHANGE)
+ NOXON RAPIDS (STORAGE CHANGE
+ PEND OREILLE LAKE (STORAGE CHANGE)
PRIEST R NR PRIEST R, ID
+ PRIEST LAKE (STORAGE CHANGE)
COEUR D'ALENE R AT ENAVILLE, ID - No Corrections
ST. JOE R AT CALDER, ID - No Corrections
SPOKANE R NR POST FALLS, ID
+ COEUR D'ALENE LAKE (STORAGE CHANGE)
SPOKANE R AT LONG LAKE, ID
+ COEUR D'ALENE LAKE (STORAGE CHANGE)

Clearwater River Basin

CLEARWATER R AT OROFINO, ID - No Corrections
DWORSHAK RESERVOIR INFLOW, ID
+ CLEARWATER R NR PECK, ID
+ DWORSHAK RESV (STORAGE CHANGE)
- CLEARWATER R AT OROFINO, ID
CLEARWATER R AT SPALDING, ID
+ DWORSHAK RESV (STORAGE CHANGE)

Salmon River Basin

SALMON R AT SALMON, ID - No Corrections
SALMON R AT WHITE BIRD, ID - No Corrections

Weiser, Payette, Boise River Basins

WEISER R NR WEISER, ID - No Corrections
SF PAYETTE R AT LOWMAN, ID - No Corrections
DEADWOOD RESERVOIR INFLOW, ID
+ DEADWOOD R BLW DEADWOOD RESV NR LOWMAN
+ DEADWOOD RESV (STORAGE CHANGE)
NF PAYETTE R AT CASCADE, ID
+ CASCADE RESV (STORAGE CHANGE)
NF PAYETTE R NR BANKS, ID
+ CASCADE RESV (STORAGE CHANGE)
PAYETTE R NR HORSESHOE BEND, ID
+ DEADWOOD RESV (STORAGE CHANGE)
+ CASCADE RESV (STORAGE CHANGE)
BOISE R NR TWIN SPRINGS, ID - No Corrections
SF BOISE R AT ANDERSON RANCH DAM, ID
+ ANDERSON RANCH RESV (STORAGE CHANGE)
MORES CK NR ARROWROCK DAM, ID - No Corrections
BOISE R NR BOISE, ID
+ ANDERSON RANCH RESV (STORAGE CHANGE)
+ ARROWROCK RESV (STORAGE CHANGE)
+ LUCKY PEAK RESV (STORAGE CHANGE)

Wood and Lost River Basins

BIG WOOD R AT HAILEY, ID - No Corrections
BIG WOOD R NR BELLEVUE, ID - No Corrections
CAMAS CK NR BLAINE, ID - No Corrections
BIG WOOD R BLW MAGIC DAM NR RICHFIELD, ID
+ MAGIC RESV (STORAGE CHANGE)
LITTLE WOOD R NR CAREY, ID
+ LITTLE WOOD RESV (STORAGE CHANGE)
BIG LOST R AT HOWELL RANCH NR CHILLY, ID - No Corrections
BIG LOST R BLW MACKAY RESV NR MACKAY, ID
+ MACKAY RESV (STORAGE CHANGE)
LITTLE LOST R BLW WET CK NR HOWE, ID - No Corrections

Upper Snake River Basin

HENRYS FORK NR ASHTON, ID
+ HENRYS LAKE (STORAGE CHANGE)
+ ISLAND PARK RESV (STORAGE CHANGE)
HENRYS FORK NR REXBURG, ID
+ HENRYS LAKE (STORAGE CHANGE)
+ ISLAND PARK RESV (STORAGE CHANGE)
+ DIV FM HENRYS FK BTW ASHTON & ST. ANTHONY, ID
+ DIV FM HENRYS FK BTW ST. ANTHONY & REXBURG, ID
+ GRASSY LAKE (STORAGE CHANGE)
FALLS R NR SQUIRREL, ID (Discontinued)
TETON R ABV SO LEIGH CK NR DRIGGS, ID - No Corrections
TETON R NR ST. ANTHONY, ID
- CROSS CUT CANAL
+ SUM OF DIVERSIONS ABV GAGE
SNAKE R NR MORAN, WY
+ JACKSON LAKE (STORAGE CHANGE)
PACIFIC CK AT MORAN, WY - No Corrections
SNAKE R ABV PALISADES RESV NR ALPINE, WY
+ JACKSON LAKE (STORAGE CHANGE)
GREYS R ABV PALISADES RESV, WY - No Corrections
SALT R ABV RESV NR ETNA, WY - No Corrections
PALISADES RESERVOIR INFLOW, ID
+ SNAKE R NR IRWIN, ID
+ PALISADES RESV (STORAGE CHANGE)
+ JACKSON LAKE (STORAGE CHANGE)
SNAKE R NR HEISE, ID
+ PALISADES RESV (STORAGE CHANGE)
+ JACKSON LAKE (STORAGE CHANGE)
SNAKE R NR BLACKFOOT, ID
+ PALISADES RESV (STORAGE CHANGE)
+ JACKSON LAKE (STORAGE CHANGE)
+ DIV FM SNAKE R BTW HEISE AND SHELLY GAGES
+ DIV FM SNAKE R BTW SHELLY AND BLACKFT, ID
PORTNEUF R AT TOPAZ, ID - No Corrections
AMERICAN FALLS RESERVOIR INFLOW, ID
+ SNAKE R AT NEELEY, ID
+ AMERICAN FALLS (STORAGE CHANGE)
+ PALISADES RESV (STORAGE CHANGE)
+ JACKSON LAKE (STORAGE CHANGE)

Southside Snake River Basins

OAKLEY RESERVOIR INFLOW, ID
+ GOOSE CK ABV TRAPPER CK NR OAKLEY, ID
+ TRAPPER CK NR OAKLEY, ID
SALMON FALLS CK NR SAN JACINTO, NV - No Corrections
BRUNEAU R NR HOT SPRINGS, ID - No Corrections
OWYHEE R NR GOLD CK, NV
+ WILDHORSE RESV (STORAGE CHANGE)
OWYHEE R NR ROME, OR
+ WILDHORSE RESV (STORAGE CHANGE)
+ JORDAN VALLEY RESV (STORAGE CHANGE)
OWYHEE RESERVOIR INFLOW, OR
+ OWYHEE R BLW OWYHEE DAM, OR
+ OWYHEE RESV (STORAGE CHANGE)
+ DIV TO NORTH AND SOUTH CANALS
SUCCOR CK NR JORDAN VALLEY, OR - No Corrections
SNAKE R - KING HILL, ID - No Corrections
SNAKE R NR MURPHY, ID - No Corrections
SNAKE R AT WEISER, ID - No Corrections
SNAKE R AT HELLS CANYON DAM, ID
+ BROWNLEE RESV (STORAGE CHANGE)

Bear River Basin

BEAR R NR RANDOLPH, UT
+ SULPHUR CK RESV (STORAGE CHANGE)
+ CHAPMAN CANAL DIVERSION
+ WOODRUFF NARROWS RESV (STORAGE CHANGE)
SMITHS FORK NR BORDER, WY - No Corrections
THOMAS FORK NR WY-ID STATELINE - No Corrections
BEAR R BLW STEWART DAM, ID
+ SULPHUR CK RESV (STORAGE CHANGE)
+ CHAPMAN CANAL DIVERSION
+ WOODRUFF NARROWS RESV (STORAGE CHANGE)
+ TOTAL OF 12 CANALS
+ WESTFORK CANAL
+ DINGLE INLET CANAL
+ RAINBOW INLET CANAL
MONTPELIER CK NR MONTPELIER, ID
+ MONTPELIER CK RESV (STORAGE CHANGE)
CUB R NR PRESTON, ID - No Corrections

RESERVOIR CAPACITY DEFINITIONS - Different agencies use various definitions when reporting reservoir capacity and contents. Reservoir storage terms include dead, inactive, active, and surcharge storage. The table below lists these volumes for each reservoir in this report, and defines the storage volumes that NRCS uses when reporting capacity and current reservoir storage. In most cases, NRCS reports usable storage, which includes active and inactive storage.

BASIN/ RESERVOIR	DEAD STORAGE	INACTIVE STORAGE	ACTIVE STORAGE	SURCHARGE STORAGE	NRCS CAPACITY	NRCS FIGURES INCLUDE
PANHANDLE REGION						
HUNGRY HORSE	39.73	--	3451.00	--	3451.0	ACTIVE
FLATHEAD LAKE	Unknown	--	1791.00	--	1971.0	ACTIVE
NOXON RAPIDS	Unknown	--	335.00	--	335.0	ACTIVE
PEND OREILLE	406.20	112.40	1042.70	--	1561.3	DEAD + INACTIVE + ACTIVE
COEUR D'ALENE	--	13.50	225.00	--	238.5	INACTIVE + ACTIVE
PRIEST LAKE	20.00	28.00	71.30	--	119.3	DEAD + INACTIVE + ACTIVE
CLEARWATER BASIN						
DWORSHAK	--	1452.00	2007.00	--	3459.0	INACTIVE + ACTIVE
WEISER/BOISE/PAYETTE BASINS						
MANN CREEK	1.61	0.24	11.10	--	11.1	ACTIVE
CASCADE	--	50.00	653.20	--	703.2	INACTIVE + ACTIVE
DEADWOOD	1.50	--	161.90	--	161.9	ACTIVE
ANDERSON RANCH	29.00	41.00	423.18	--	464.2	INACTIVE + ACTIVE
ARROWROCK	--	--	286.60	--	286.6	ACTIVE
LUCKY PEAK	--	28.80	264.40	13.80	293.2	INACTIVE + ACTIVE
LAKE LOWELL	--	8.00	169.10	--	169.1	ACTIVE
WOOD/LOST BASINS						
MAGIC	--	--	191.50	--	191.5	ACTIVE
LITTLE WOOD	--	--	30.00	--	30.0	ACTIVE
MACKAY	0.13	--	44.37	--	44.4	ACTIVE
UPPER SNAKE BASIN						
HENRYS LAKE	--	--	90.40	--	90.4	ACTIVE
ISLAND PARK	0.40	--	127.30	7.90	135.2	ACTIVE + SURCHARGE
GRASSY LAKE	--	--	15.18	--	15.2	ACTIVE
JACKSON LAKE	--	--	847.00	--	847.0	ACTIVE
PALISADES	44.10	155.50	1200.00	--	1400.0	DEAD + INACTIVE + ACTIVE
RIRIE	4.00	6.00	80.54	10.00	80.5	ACTIVE
BLACKFOOT	--	--	348.73	--	348.7	ACTIVE
AMERICAN FALLS	--	--	1672.60	--	1672.6	ACTIVE
SOUTHSIDE SNAKE BASINS						
OAKLEY	--	--	77.40	--	77.4	ACTIVE
SALMON FALLS	48.00	--	182.65	--	182.6	ACTIVE
WILDHORSE	--	--	71.50	--	71.5	ACTIVE
OWYHEE	406.83	--	715.00	--	715.0	ACTIVE
BROWNLEE	0.45	444.00	975.30	--	1419.3	INACTIVE + ACTIVE
BEAR RIVER BASIN						
WOODRUFF NARROWS	--	1.50	57.30	--	57.3	ACTIVE
WOODRUFF CREEK	--	4.00	4.00	--	4.0	ACTIVE
BEAR LAKE	--	--	1421.00	--	1421.0	ACTIVE
MONTPELIER CREEK	0.21	--	3.84	--	4.0	DEAD + ACTIVE

Interpreting Streamflow Forecasts

Introduction

Each month, five forecasts are issued for each forecast point and each forecast period. Unless otherwise specified, all streamflows are for streamflow volumes that would occur naturally without any upstream influences. Water users need to know what the different forecasts represent if they are to use the information correctly when making operational decisions. The following is an explanation of each of the forecasts.

Most Probable (50 Percent Chance of Exceeding) Forecast. This forecast is the best estimate of streamflow volume that can be produced given current conditions and based on the outcome of similar past situations. There is a 50 percent chance that the streamflow volume will exceed this forecast value. There is a 50 percent chance that the streamflow volume will be less than this forecast value.

The most probable forecast will rarely be exactly right, due to errors resulting from future weather conditions and the forecast equation itself. This does not mean that users should not use the most probable forecast: it means that they need to evaluate existing cirumstances and determine the amount of risk they are willing to take by accepting this forecast value.

To Decrease the Chance of Having Too Little Water

If users want to make sure there is enough water available for their operations, they might determine that a 50 percent chance of the streamflow volume being lower than the most probable forecast is too much risk to take. To reduce the risk of not having enough water available during the forecast period, users can base their operational decisions on one of the forecasts with a greater chance of being exceeded (or possibly some point in-between). These include:

70 Percent Chance of Exceeding Forecast. There is a 70 percent chance that the streamflow volume will exceed this forecast value. There is a 30 percent chance the streamflow volume will be less than this forecast value.

90 Percent Chance of Exceeding Forecast. There is a 90 percent chance that the streamflow volume will exceed this forecast value. There is a 10 percent chance the streamflow volume will be less than this forecast value.

To Decrease the Chance of Having Too Much Water

If users want to make sure they don't have too much water, they might determine that a 50 percent chance of the streamflow being higher than the most probable forecast is too much of a risk to take. To reduce the risk of having too much water available during the forecast period, users can base their operational decisions on one of the forecasts with a smaller chance of being exceeded. These include:

30 Percent Chance of Exceeding Forecast. There is a 30 percent chance that the streamflow volume will exceed this forecast value. There is a 70 percent chance the streamflow volume will be less than this forecast value.

10 Percent Chance of Exceeding Forecast. There is a 10 percent chance that the streamflow volume will exceed this forecast value. There is a 90 percent chance the streamflow volume will be less than this forecast value.

Using the forecasts - an example

Using the Most Probable Forecast. Using the example forecasts shown below, users can reasonably expect 36,000 acre-feet to flow past the gaging station on the Mary's River newa Deeth between March 1 and July 31.

Using the Higher Exceedance Forecasts. If users anticipate a somewhat drier trend in the future (monthly and seasonal weather outlooks are available from the National Weather Service every two weeks), or if they are operating at a level where an unexpected shortage of water could cause problems, they might want to plan on receiving only 20,000 acre-feet (from the 70 percent chance of exceeding forecast). In seven out of ten years with similar conditions, streamflow volumes will exceed the 20,000 acre-foot forecast.

If users anticipate extremely dry conditions for the remainder of the season, or if they detrmine the risk of using the 70 percent chance of exceeding forecast is too great, then they might plan on receiving only 5000 acre-feet (from the 90 percent chance of exceeding forecast). Nine out of ten years with similar conditions, streamflow volumes will exceed the 5000 acre-foot forecast.

Using the Lower Exceedance Forecasts. If users expect wetter future conditions, or if the chance that tive out of every ten years with similar conditions would produce streamflow volumes greater that 36,000 acre-feet was more than they would like to risk, they might plan on receiveing 52,000 acre-feet (from the 30 percent chance of exceeding forecast) to minimize potential flooding problems. Three out of ten years with similar conditions, streamflows will exceed the 52,000 acre-foot forecast.

In years when users expect extremely wet conditions for the remainder of the season and the threat of severe flooding and downstream damage exists, they might choose to use the 76,000 acre-foot (10 percent chance of exceeding) forecast for their water management operations. Streamflow volumes will exceed this level only one year out of ten.

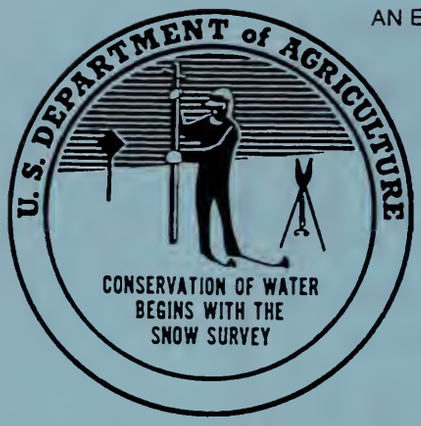
UPPER HUMBOLDT RIVER BASIN

STREAMFLOW FORECASTS

FORECAST POINT	FORECAST PERIOD	<-----DRIER-----FUTURE CONDITIONS-----WETTER-----> Chance of Exceeding 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG)	30% (1000AF)	10% (1000AF)	25 YR (1000AF)
MARY'S RIVER	MAR-JUL	5.0	20.0	36	77	52	76	47
nr Deeth	APR-JUL	8.0	17.0	31	74	45	67	42
LAMOILLE CREEK	MAR-JUL	6.0	16.0	24	79	32	43	31
nr Lamoille	APR-JUL	4.0	15.0	22	75	30	41	30
NR HUMBOLDT RIVER at Devils Gate	MAR-JUL	6.0	12.0	43	73	74	121	59

For more information concerning streamflow forecasting ask your local NRCS field office for a copy of "A Field Office Guide for Interpreting Streamflow Forecasts".

AN EQUAL OPPORTUNITY EMPLOYER



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